Letter to the Editor

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Rapidly growing ranula and its management in a neonate

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Dear Sir

Congenital ranula is a rare sublingual mucous extravasation pseudocyst. It is generally caused by the obstruction of the excretory duct of the submandibular or sublingual salivary gland. [1] They are often asymptomatic and well-circumscribed. [1] However, we experienced a rapidly growing obstructive congenital ranula necessitating emergent surgical management.

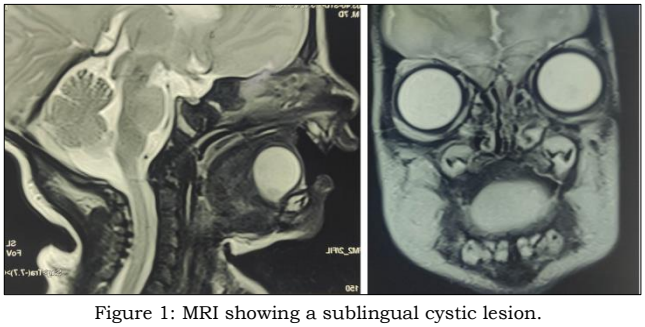

Figure 1: MRI showing a sublingual cystic lesion.

In a newborn, the physical examination at birth revealed no abnormalities except a minor swelling under the tongue. The newborn was feeding well without any difficulty and had normal breathing. Physicians decided on a conservative approach with regular follow-up. Two weeks later, the sublingual pseudocyst had grown significantly causing feeding and breathing difficulties, and a weight loss of 0.5 kg was noted. MRI showed an enormous and obstructive sublingual cyst measuring 22×18×17mm requiring an emergent surgical treatment (Fig. 1). Airway management was the main challenge for anesthesiologists. Parents were aware of the risks and gave their consent. After anesthesia induction, the intubation failed despite several attempts by experienced operators (Cormack: IV). We opted for the cyst puncture, allowing a better view (Cormack: II) for oral intubation with a 2.5 mm tube. The cyst excision was done under deep general anesthesia using a transoral approach (Fig. 2). The patient received 1 mg of dexamethasone and 150 mg of amoxicillin-clavulanic acid at the beginning of the intervention. The excision of the cyst was performed by giving an incision in the sublingual space over the cyst. The histologic examination showed a pseudocyst without epithelial lining, evoking a ranula. The patient was extubated 24 hours later after verifying the absence of oral edema and complications. The baby is now 2 months old and has no recurrence.

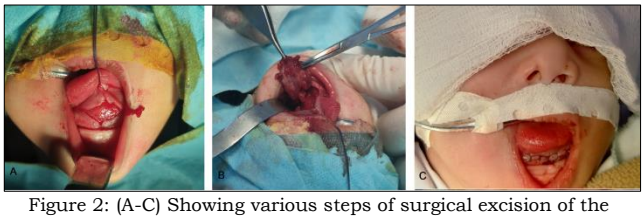

Figure 2: (A-C) Showing various steps of surgical excision of the ranula.

Few cases of massive and obstructive congenital sublingual ranula were reported in the literature, particularly in neonates. [1, 2] Cyst drainage with a simple needle puncture seems to be helpful in airway management. It is safer than the cricothyroid puncture or a retrograde approach to intubation, which can lead to several complications, especially in neonates or in atypical presentations of the ranula. [2, 3] We believe that this approach is safe and useful for facilitating intubation and that it can be used even before anesthesia induction, to open the airway. [4] The surgical treatment of the ranula includes several techniques, such as sclerotherapy, incision and drainage, marsupialization, and cyst excision with or without sublingual gland removal via intraoral, transcervical, or dual approaches. The main surgical complication was cyst rupture, but there was no increased risk of ranula recurrence. Moreover, it was reported that conservative therapeutic options like marsupialization and incision with drainage, are associated with a higher rate of recurrence. [5]

To summarize, congenital ranula can have various clinical presentations and can grow rapidly, causing obstruction of the airway. The cyst drainage with a needle puncture helped us to manage the airway

obstruction. Radical treatment with cyst excision may reduce the risk of recurrence when compared with conservative approaches.

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